

METHOD AND APPARATUS FOR ACCELERATING HARDWARE SIMULATION

Abstract

5 A method for accelerating hardware simulation is presented wherein cycle based
simulations of digital system designs are generated by raising the level of abstraction in a
hardware simulation environment. Behavioral models of the digital system components are
created in a high level general purpose programming language. Function calls created in a high
level general purpose programming language provide a transaction based communication
10 interface. During a simulation of the system design, the behavioral models communicate with
each other through the transaction based communication interface. Additionally, the behavioral
models employ an execute and update method of instruction processing that generates cycle
accurate information for the simulation.